

FIG. 1

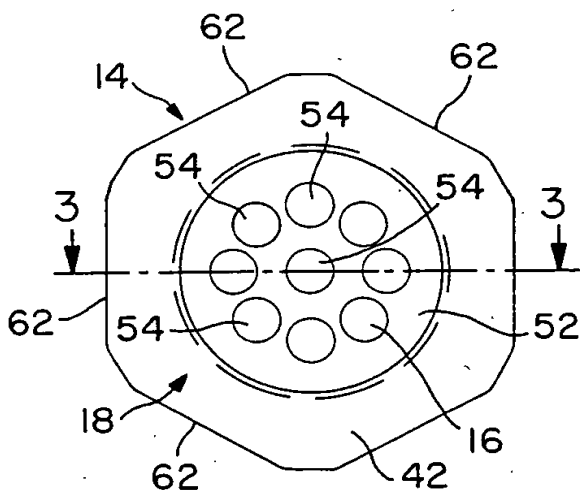


FIG. 2

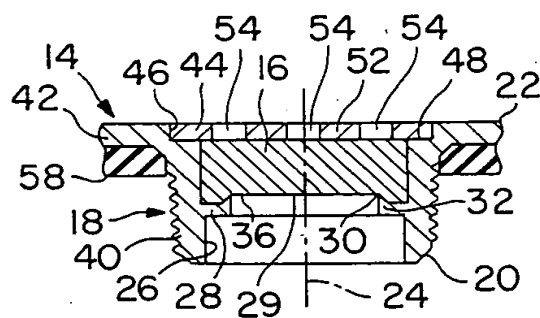


FIG. 3

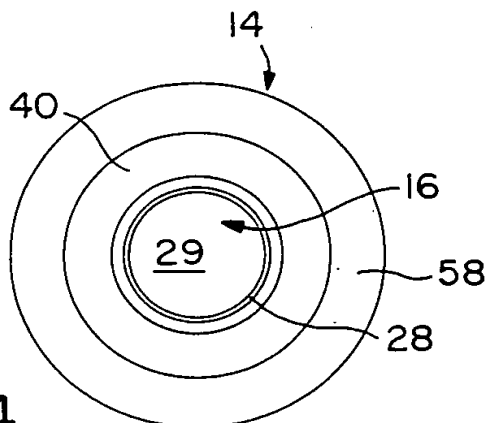


FIG. 4



Media	Concentration, % by weight	Test Temperature		Average Corrosion Rate per year, mils**			
		°F	(°C)	C-22® alloy	C-276 alloy	C-4 alloy	625 alloy
Acetic Acid	99	Boiling		Nil	<1	Nil	<1
Ferric Chloride	10	Boiling		1	2	140	7325
Formic Acid	88	Boiling		<1	1	2	9
Hydrochloric Acid	1	Boiling		3	13	25	1
	1.5	Boiling		14	32	64	353
	2	194 (90)		Nil	1	31	Nil
	2	Boiling		61	51	82	557
	2.5	194 (90)		<1	12	34	72
	2.5	Boiling		141	85	44	605
	10	Boiling		400	288	228	642
Hydrochloric Acid +42 g/l Fe ₂ (SO ₄) ₃	1	200 (93)		2	41	—	238
	5	150 (66)		2	5	3	2
Hydrochloric Acid +2% HF	5	158 (70)		59	26	34	123
Hydrofluoric Acid	2	158 (70)		9	9	17	20
	5	158 (70)		14	10	15	16
P ₂ O ₅ (Commercial Grade)	38	185 (85)		2	9	—	1
	44	240 (116)		21	100	—	23
	52	240 (116)		11	33	—	12
P ₂ O ₅ + 2000 ppm Cl	38	185 (85)		1	12	—	2
P ₂ O ₅ + 0.5% HF	38	185 (85)		7	45	—	9
Nitric Acid	10	Boiling		<1	7	7	<1
	65	Boiling		134	888	217	21
Nitric Acid+ 6% HF	5	140 (60)		67	207	204	73
Nitric Acid+ 25% H ₂ SO ₄ + 4% NaCl	5	Boiling		12	64	97	713
Nitric Acid+ 1% HCl	5	Boiling		<1	8	11	1
Nitric Acid+ 2.5% HCl	5	Boiling		2	21	26	<1
Nitric Acid+ 15.8% HCl	8.8	126 (52)		4	33	114	>10,000

* Average of 4-10 tests.

** To convert mils per year (mpy) to mm per year, divide by 40.

FIG. 5

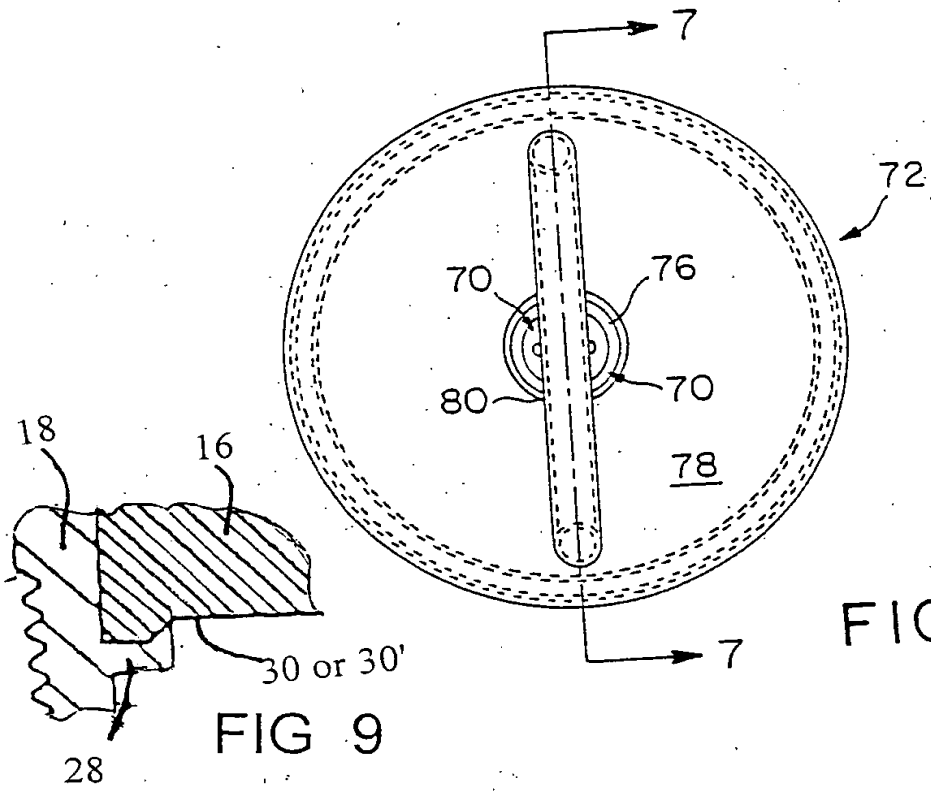


FIG. 6

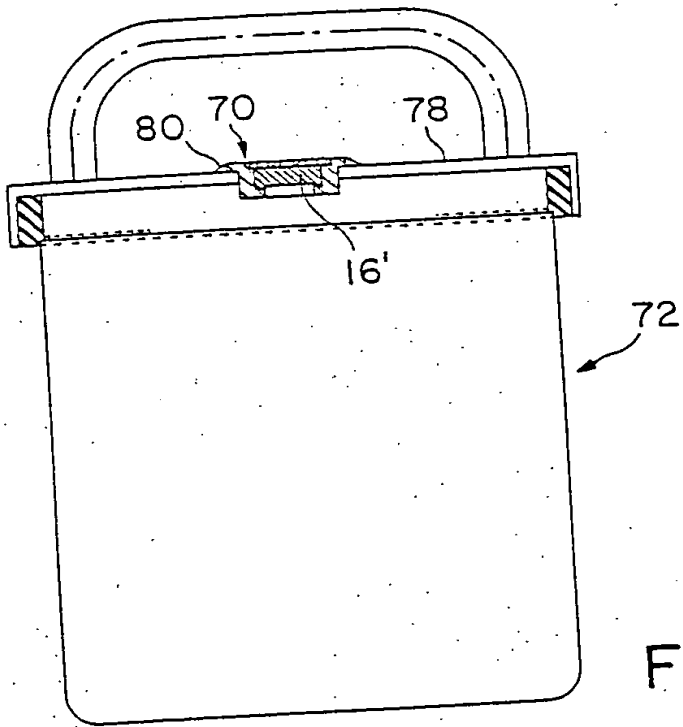


FIG. 7

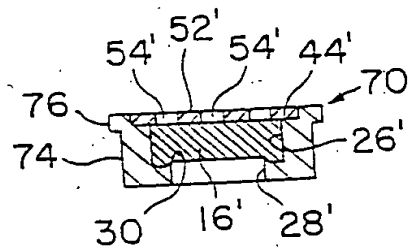


FIG. 8